

## PATENT ABSTRACTS OF JAPAN

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(71)Applicant : RICOH CO LTD

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## (54) PRODUCTION OF ELECTROSTATIC CHARGE IMAGE DEVELOPING TONER

## (57)Abstract:

PURPOSE: To provide a toner which has uniform electrostatic chargeability and with which bright image is obtainable and excellent durability and fixing characteristics are obtd. by fixing composite particulates formed by bringing resin particulates having an acidic group and fluorine-contained quaternary ammonium salt into reaction to the surfaces of coloring resin particles.

CONSTITUTION: The composite particles of the fluorine-contained quaternary ammonium salt obtd. by bringing the resin particulates having the acidic group and the fluorine-contained quaternary ammonium salt into reaction in the presence of a nonionic surfactant and the coloring resin particulates are mixed and the composite particles are injected to the surfaces of the coloring resin particles by mechanical energy to form a film. Namely, a stable suspended state in hydrogen is maintained in the resin particulates by the charges generated by the acidic group but the charges are lost by reaction with the fluorine-contained quaternary ammonium salt and the particles are made hydrophobic by the fluorine group contained therein. The resin particles, therefore maintain the stability even after the reaction with the fluorine-contained quaternary ammonium salt by the presence of the nonionic surfactant which does not participate in the reaction and, therefore, the composite particulates are uniformly stuck to the surfaces of the coloring resin particles.

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